

---

**IMPLANTABLE LEAD AND METHOD FOR  
STIMULATING THE VAGUS NERVE**

---

**ABSTRACT**

Methods and apparatus for stimulating the right vagal nerve within  
5 a living body via positioning an electrode portion of a lead proximate to  
the portion of the vagus nerve where the right cardiac branch is located  
(e.g., near or within an azygos vein, or the superior vena cava near the  
opening of the azygos vein) and delivering an electrical signal to an  
electrode portion adapted to be implanted therein. Stimulation of the right  
10 vagus nerve and/or the cardiac branch thereof act to slow the atrial heart  
rate. Exemplary embodiments include deploying an expandable or self-  
oriented electrode (e.g., a basket, an electrode umbrella, and/or an  
electrode spiral electrode, electrode pairs, etc). Various dedicated and  
single-pass leads are disclosed, as well as, various electrodes, and  
15 stabilization means. The methods include preserving sinus rhythm,  
avoiding asystole, preserving A-V synchrony, automatically determining  
parameter combinations that achieve these features, and further (in one  
embodiment) automatically determining parameter combinations achieve  
these features and reduce current drain.